

DISCUSSION OF THE AMENDMENTS

Claims 1-8 are original.

Claim 9 is new.

New Claim 9 is supported on pages 4 and 5 of the specification.

Upon entry of the amendment, Claims 1-9 will be active.

No new matter has been added by the amendments.

REMARKS/ARGUMENTS

The presently claimed recording medium involves a magnetic layer containing at least a ferromagnetic powder and a binder resin on one surface of a non-magnetic support where the thickness of the magnetic layer is within a range from 0.03 to 0.30 μm and the number of concavities with a depth of 30 nm or greater in the surface of the magnetic layer is 5 per 1 cm^2 of surface area or less. The claimed magnetic recording medium has superior electromagnetic conversion characteristics owing in part to a superior surface smoothness.

The Examiner has rejected the claims over a number of cited references including Meguro (US 6,890,646), Lowery (US 6,818,298), Katsutoshi (JP 11-031322), Shigeo (JP 09-185822), Matsuno (2001-84549), Harasawa (US 6,875,495) and Kitamura (US 6,777,061). All of these cited references describe various types of magnetic recording medium and methods for producing them. However, none of the cited references teach or suggest the presently claimed magnetic recording medium with the claimed number of concavities.

The rejection of the claims under 35 U.S.C. § 102 and 35 U.S.C. § 103 over the cited references is respectfully traversed. The Examiner has rejected the claims based on the assumption that the claimed number of concavities is inherent in the cited references and therefore, the claimed magnetic recording medium would have been anticipated or obvious over the cited references. Applicants note that for inherency to exist, the prior art products must necessarily possess the claimed number of concavities (M.P.E.P. § 2112.01).

Applicants submit that the claimed magnetic recording medium would not have been anticipated or obvious over the cited references because the cited reference products do not necessarily (inherently) possess the claimed number of concavities. Specifically, Applicants direct the Examiner to Matsuro (2001-84549) which is the only reference that discusses concavities. Matsuro describes a magnetic recording medium with a number of depressions (concavities) with depths of at least 50 nm at a density of 10 per 46237.5 μm^2 or less. In

Table 4, on page 48 of Matsuro, Example 1 exemplifies the lowest number of concavities achieved in Matsuro at 1 concavity per $46237.5 \mu\text{m}^2$. The number of 50 nm or greater concavities per cm^2 for Example 1 in Matsuro is calculated as follows:

$$\left(\frac{1 \text{ concavity}}{46237.5 \mu\text{m}^2} \right) \left(\frac{1 \mu\text{m}^2}{(1 \times 10^{-6} \text{m})^2} \right) \left(\frac{1 \text{ m}^2}{(100 \text{ cm})^2} \right)$$
$$= 2163 \text{ concavities/cm}^2$$

This number of 50 nm or greater concavities is over 3 orders of magnitude greater than the presently claimed number of concavities. Note that this number would be even higher if 30 nm or greater concavities were counted. These data clearly show that the previously described magnetic recording medium would not necessarily possess the claimed number of concavities. Since Matsuro does not necessarily have the claimed number of concavities, it follows that the remaining cited references do not necessarily possess the claimed number of concavities.


Accordingly, the claimed number of concavities is not inherent in Meguro (US 6,890,646), Lowery (US 6,818,298), Katsutoshi (JP 11-031322), Shigeo (JP 09-185822), Matsuno (2001-84549), Harasawa (US 6,875,495) and Kitamura (US 6,777,061), and therefore, the claimed magnetic recording medium would not have been anticipated or obvious over these cited references. As such, Applicants respectfully request that the Examiner withdraw the rejections over the cited references.

Finally, Applicants note that the present application and U.S. Patent 6,875,495 do not appear to be commonly assigned. Accordingly, an obviousness-type double patenting rejection would not apply.

In light of the above remarks contained herein, Applicants respectfully submit that the present application is now in condition for allowance. Favorable reconsideration is respectfully requested.

Respectfully submitted,

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